

SDMS Doc ID 2000783

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The Boeing Company
Rocketdyne Propulsion & Power
6633 Canoga Avenue
P.O. Box 7922
Canoga Park, CA 91309-7922

CERTIFIED MAIL

February 17, 2004 In reply refer to 2004RC0590



Gerard Abrams
Calif. Environmental Protection Agency
Department of Toxic Substances Control
Region 1
Facility Permitting Branch
8800 Cal Center Drive
Sacramento CA 95826-3200

Subject: Santa Susana Field Laboratory Corrective Action Program Quarterly

Progress Reports for EPA ID Numbers CAD093365435 (Rocketdyne),

CA1800090010 (NASA) and CAD000629972 (DOE)

Dear Mr. Abrams:

The Boeing Company, Rocketdyne (Rocketdyne) has enclosed the following progress reports as required by Hazardous Waste Facility Post-Closure Permits for Rocketdyne and NASA at the Santa Susana Field Laboratory (SSFL). In addition, Rocketdyne has included a progress report for the DOE Corrective Action sites in Area IV. Rocketdyne has submitted the reports in the format as it appears in Attachment I of the Rocketdyne and NASA permits. This reporting period is from November 16, 2003 through February 13, 2004.

Should you have any comments, please do not hesitate to let me know. I can be reached at (818) 586-5695.

Sincerely,

Art Lenox

Environmental Remediation

AJL:dr Enclosures

(SHEA-099210)

G. Abrams (2004RC0590) February 17, 2004 Page 2

Ø— BOEING cc: A. Elliott/NASA

D. Hambrick/MWH

L. Rainey/DTSC

S. Baxter/DTSC

P. Batarseh/DTSC

P. Bailey/DTSC

K. Baker/DTSC

M. Lopez/DOE/OAK

J. Beach/EPA

J. Pappas

R. Marshall/CSUN, Oviatt Library

D. Redfield/Simi Valley Library

Ms. Lynn Light, /LA Public Library

Platt Branch

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Santa Susana Field Laboratory RFI and CMS Projects Quarterly Progress Report EPA ID No.CAD 093365435 (Rocketdyne)

Rocketdyne Project Manager:

Art Lenox

Contractor Project Manager:

Dixie Hambrick

Report Period:

November 16, 2003 - February 15, 2004

1. PROGRESS MADE THIS REPORT PERIOD

Soil, soil leachate, surficial bedrock, and surface water sampling was performed during this period for the RCRA Facility Investigation (RFI). The majority of this field effort was for perchlorate characterization at the Happy Valley and Building 359 RFI sites (Area I Areas of Concern [AOCs]) (Table 1). This work was performed in support of. and during, the Happy Valley/Building 359 interim measures (HVIM). Limited soil sampling was also performed at the Component Test Laboratory V (CTL-V) RFI site (Area I AOC). MWH collected a total of 438 soil matrix, soil leachate, bedrock, and surface water samples at 2 Rocketdyne sites during this reporting period (Table 1). The majority of the soil and water sample analysis was performed by the California-certified laboratories Del Mar Analytical, located in Irvine, and at Ceimic Corporation, located in Rhode Island. Because of the high sample volume and need for rapid turn around times, other laboratories used this period included the California-certified Severn Trent Laboratories (STL) located in Sacramento, Denver, and Savanna. To date, approximately 1186 soil vapor (1290 analyses) and 4620 soil matrix/bedrock/surface water samples (8712 analyses) have been collected from Rocketdyne locations during the RFI program (Table 2).

Near-surface groundwater sampling was not conducted this period (Table 1). To date, approximately 201 groundwater samples (313 analyses) have been collected from Rocketdyne locations during the RFI program (Table 2). The Near-Surface Groundwater Characterization Report was completed and submitted to DTSC in November 2003. The report presents a comprehensive description of the SSFL near-surface groundwater investigation results.

HVIM field work for excavation activities were completed this period, and the area backfilled and revegetated. A HVIM Report for this phase of the project is being prepared. In December 2003, a work plan was prepared and submitted to DTSC regarding the biotreatment of perchlorate-impacted soils from Happy Valley and Building 359 sites. A meeting was held with DTSC and the Los Angeles Regional Water Quality Board (RWQCB) on January 29, 2003 to discuss this document, and additional information regarding the implementation of the biotreatment phase is being prepared for agency review.

RFI Quarterly Progress Report EPA No. CAD093365435 (Areas I, III and IV) November 16, 2003 – February 15, 2004 Page 2

The Area I Landfill (SWMU 4.2) investigation was completed in early November and trenches were backfilled in December 2003 after review of sample results and discussion with DTSC.

Work continued this period on the comprehensive evaluation of perchlorate at and near the SSFL. Perchlorate sampling results from the northern portion of the SSFL and leading offsite to well OS-9 were published in the Northern Drainage Sampling Technical Memorandum, submitted to DTSC in November 2003. An update to the February 2003 Perchlorate Source Evaluation and Technical Report was also completed to summarize new sampling information between January and October 2003. The Perchlorate Report Update was submitted to DTSC in November 2003.

Preparation of draft RFI site reports continued this period. The draft Instrument and Equipment Laboratories (IEL) (SWMUs 4.3, 4.4, and AOCs) RFI site report was completed and submitted to DTSC in December. Preparation of the draft CTL-V RFI site report (Area I AOC) is ongoing. Work also began on the comprehensive RFI Program report, and RFI site reports for several Rocketdyne sites in Area IV.

Based on meetings and discussions with DTSC, the Standardized Risk Assessment Methodology (SRAM) Work Plan, Revision 1 for the Surficial Media Operable Unit, was revised. Meetings with DTSC are continuing to identify required changes to this document prior to submitting a final work plan.

Validation of recent soil and water samples and conducting a program quality assurance (QA) review of soil sampling data are ongoing.

DTSC, Rocketdyne, and MWH met several times this period to discuss the HVIM, RFI reports and groundwater investigations, risk assessment methodology, and DTSC Hazardous Materials Laboratory (HML) data validation of the RFI samples.

2. SUMMARY OF FINDINGS

Perchlorate was detected in soil leachate, surficial bedrock, and/or surface water samples collected at the Happy Valley and Building 359 RFI sites (Area I AOCs). These areas have been previously identified as known perchlorate use sites at the SSFL. Review of the laboratory data is continuing.

Review of Area I Landfill RFI site soil sample data, collected during October/November 2003, indicate localized concentrations of elevated metals and polychlorinated biphenyls (PCBs). Low concentrations of perchlorate (up to about 30 micrograms per kilogram)

RFI Quarterly Progress Report EPA No. CAD093365435 (Areas I, III and IV) November 16, 2003 – February 15, 2004 Page 3

were detected in soil leachate samples collected near the Area I road in a limited portion of the landfill.

Review of soil sampling results near ground-mounted transformers, collected during September 2003, indicate that PCBs were detected at 6 of the 24 transformer locations sampled. These included transformers at the following Rocketdyne RFI sites: IEL (SWMUs 4.3, 4.4, and AOCs), Building 359 (Area I AOC), Laser Engineering Test Facility (LETF) (SWMU 12), CTL-III (SWMU 4.7), and Environmental Effects Laboratory (EEL) (SWMU 6.9).

3/4 SUMMARY OF PROBLEMS/ACTIONS TAKEN

None.

5. PROJECT ACTIVITY NEXT PERIOD

Boeing will be involved with the following RFI activities during the next period:

- Implement biotreatment activities for the HVIM at the Building 359 RFI site (pending permit and work plan approvals)
- Complete and submit the draft HVIM Excavation Report
- Complete and submit the draft CTL-V RFI Site Report
- Complete and submit the draft RFI Program Report
- Continue preparation of the draft Area IV RFI Site Reports
- Complete and submit the final Surficial OU SRAM, Revision 1
- Complete transformer sampling at Rocketdyne RFI sites
- Continue data validation for samples collected at Rocketdyne sites

6. PERSONNEL CHANGES

None.

7. SUMMARY OF CONTACTS

None.

RFI Quarterly Progress Report EPA No. CAD093365435 (Areas I, III and IV) November 16, 2003 – February 15, 2004 Page 4

8. TREATMENT SYSTEM EFFECTIVENESS

No soil remediation treatment systems are in place or operational at this time. Next period, biotreatment of perchlorate-impacted soils will begin after permits are obtained for the HVIM.

9. DATA REPORTS SUBMITTED

- Perchlorate Source Evaluation and Technical Report Update, January through September 2003, Santa Susana Field Laboratory, Ventura County, California. Volumes I and II. November 2003.
- Northern Drainage Perchlorate Sampling Results Technical Memorandum, Santa Susana Field Laboratory, Ventura County, California. November 2003.
- Near-Surface Groundwater Characterization Report, Santa Susana Field Laboratory, Ventura County, California. Volumes I and II. November 2003.
- Instrument and Equipment Laboratories (IEL) (SWMU 4.3, 4.4, and AOCs), RCRA Facility Investigation Report, Santa Susana Field Laboratory, Ventura County, California. December 2003.
- Work Plan for the Biotreatment of Perchlorate in Soil and Sediment, Happy Valley Interim Measures Project, Santa Susana Field Laboratory, Ventura County, California. December 2003

Table 1 Rocketdyne Sampling Summary November 16, 2003 - February 15, 2004

UNIT	Facility	MATRIX	Total Samples	Total Analyses	PCBs 8080/8082	SVOA, 8270CSIM	TPH, 8015	Dioxin, 8290	Metals 6010B/7000	Ordnance, 8330	VOA, 8260	PERCHLORA TE	Arsenic
Area I AOC	Happy Valley	R	8	8	0	0	0	0	0	0	0	8	0
Area I AOC	Happy Valley	S	55	116	0	16	5	10	34	16	8	10	17
Area I AOC	Happy Valley	W	370	370	0	0	0	0	0	0	0	370	0
Area I AOC	CTL-V	S	5	5	5	0	0	0	0	0	0	0	0
Total Surficial bedro	ck	R	8	8	0	0	0	0	0	0	0	8	0
Total Soil		S	60	121	5	16	5	10	34	16	8	10	17
Total Water		W	370	370	0	0	0	0	0	0	0	370	0
TOTAL			438	499	5	16	5	10	34	16	8	388	17
	V = includes surface water and	l leachates											
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Note : does not includ	e samples on hold.												

Table 2 NPI Sampling Symmary Nevember 16, 2003 - February 16, 200

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Santa Susana Field Laboratory RFI and CMS Projects Quarterly Progress Report EPA ID No. CAD000629972 (Department of Energy)

Rocketdyne Project Manager:

Art Lenox

Contractor Project Manager:

Dixie Hambrick

Report Period:

November 16, 2003 - February 15, 2004

1. PROGRESS MADE THIS REPORT PERIOD

Sampling was not performed during this period for the RCRA Facility Investigation (RFI) at DOE sites. To date, approximately 136 soil vapor (136 analyses) and 360 soil matrix/bedrock/surface water samples (1782 analyses) have been collected from DOE locations during the RFI program (Table 2). (Table 1, a summary of samples collected this period, is not included for this report.)

Near-surface groundwater sampling was not conducted this period. To date, approximately 48 groundwater samples (152 analyses) have been collected from DOE locations during the RFI program (Table 2). The Near-Surface Groundwater Characterization Report was completed and submitted to DTSC in November 2003. The report presents a comprehensive description of the SSFL near-surface groundwater investigation results.

Based on meetings and discussions with DTSC, the Standardized Risk Assessment Methodology (SRAM) Work Plan, Revision 1 for the Surficial Media Operable Unit, was revised. Meetings with DTSC are continuing to identify required changes to this document prior to submitting a final work plan.

DTSC comments regarding the Old Conservation Yard (SWMU 7.4) RFI Site Report were received this period; discussions regarding these comments are ongoing.

Preparation of draft RFI site reports continued this period. Preparation of the draft Former Sodium Disposal Facility (FSDF) (SWMU 7.3) RFI report continued. Work began on the draft Building 56 Landfill (SWMU 7.1) and the Hazardous Materials Storage Area (HMSA) (Area IV AOC) RFI Site Reports, and the comprehensive RFI Program report.

Validation of recent soil and water samples and conducting a program quality assurance (QA) review of soil sampling data are ongoing.

DTSC, Rocketdyne, and MWH met several times this period to discuss the RFI reports and groundwater investigations, risk assessment methodology, and DTSC Hazardous Materials Laboratory (HML) data validation of the RFI samples.

Infiltration monitoring continued at FSDF (SWMU 7.3) this period.

RFI Quarterly Progress Report EPA No. CAD000629972 (Area IV) November 16, 2003 – February 15, 2004 Page 2

2. SUMMARY OF FINDINGS

Soil samples collected near ground-mounted transformers at DOE RFI sites in Area IV during September 2003 did not contain detectable polychlorinated biphenyls (a total of 24 transformer locations were sampled in this event throughout the SSFL).

3/4 SUMMARY OF PROBLEMS/ACTIONS TAKEN

None.

5. PROJECT ACTIVITY NEXT PERIOD

Boeing will be involved with the following RFI activities during the next period:

- Complete the draft FSDF, HMSA, and Building 56 Landfill RFI Site Reports
- Complete and submit the draft RFI Program Report
- Complete and submit the final Surficial OU SRAM, Revision 1
- Conduct sampling at the Building 020 RFI site (Area IV AOC)
- Complete transformer sampling at DOE RFI sites
- Continue data validation for samples collected at DOE sites
- Continue Infiltration Monitoring at FSDF

6. PERSONNEL CHANGES

None.

7. SUMMARY OF CONTACTS

None.

8. TREATMENT SYSTEM EFFECTIVENESS

No soil remediation treatment systems are in place or operational at this time.

9. DATA REPORTS SUBMITTED

Near-Surface Groundwater Characterization Report, Santa Susana Field Laboratory, Ventura County, California. Volumes I and II. November 2003.

Table 1
DOE Sampling Summary
November 16, 2003 - February 15, 2004

UNIT	Facility	MATRIX	Total Samples	Total Analyses	PCBs, 8080/8082	SVOA, 8270SIM	TPH, 8015	8015, Soil Vapor	Metals 6010B/7000	VOA, 8260	Perchlorate	PH, 9040/9045	Asbestos
Non RFI Site	Transformer Samples	S	0	0	0	0	0	0	0	0	0	0	0
Area IV AOC	SNAP	S	0	0	0	0	0	0	0	0	0	0	0
SWMU 7.1 SWMU 7.1 SWMU 7.1	Bldg 56 Landfill Bldg 56 Landfill Bldg 56 Landfill	S V W	0 0 0	0 0	0 0 0	0 0 0	0 0 0	0 0	0 0 0	0 0	0 0	0 0	0 0
SWMU 7.4	Old Conservation	S	0	0	0	0	0	0	0	0	0	0	0
Total Soil		S	0	0	0	0	0	0	0	0	0	0	0
Total Vapor		V	0	0	0	0	0	0	0	0	0	0	0
Total Water		w	0	0	0	0	0	0	0	0	0	0	0
TOTAL			0	0	0	0	0	0	0	0	0	0	0
V = Vapor	W = includes surface water											1	
Note - includes QA sam	nples (water, soil, vapor); doe	es not include	samples on h	old.									

Table 2 PIP! Sampling Summery Nevember 16, 2003 - February 16, 200

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WHEROPERATOR		Total Samples	Total Anaytoes	VOA, 6268	TPH, 9815	VOA, BEZTA	SVOA, BZ788M	\$VOA, 8278	Metate, 6010/7000	Mercury, 7471A	Moltryl Mercury	Shver, 7761	1	Beryffun	Hax Cr. 7186	Flouride, 340,2	ANIONE, 308	PH, 9010/3046	PCBs, sostass2	PCBs, 1688	Ferm, ASTMD18	Perchlerale, 38046314.1	Tifleuty Sn	Olexan, \$256	Dloxin, 1613B	Hydracine	Ordnance, 8336	SPUP, 1312	Asbestos	LPIDS	70C	Arsenic	PAH, 8318	1,4-Diexane, \$26068M	Gross Alpha/Bota, 900.0	Gemma Spec, 961.1	Deuterken	Oxygen 18	ž.	TS\$	PAH 4298
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Santa Susana Field Laboratory RFI and CMS Projects Quarterly Progress Report EPA ID No. CA1800090010 (NASA)

Rocketdyne Project Manager:

Art Lenox

Contractor Project Manager:

Dixie Hambrick

Report Period:

November 16, 2003 – February 15, 2004

1. PROGRESS MADE THIS REPORT PERIOD

Sampling was not performed during this period for the RCRA Facility Investigation (RFI) at NASA sites. To date, approximately 524 soil vapor (549 analyses) and 815 soil matrix/bedrock/surface water samples (1308 analyses) have been collected from NASA locations during the RFI program (Table 2). (Table 1, a summary of samples collected this period, is not included for this report.)

Near-surface groundwater sampling was not conducted this period. To date, approximately 81 groundwater samples (131 analyses) have been collected from NASA locations during the RFI program (Table 2). The Near-Surface Groundwater Characterization Report was completed and submitted to DTSC in November 2003. The report presents a comprehensive description of the SSFL near-surface groundwater investigation results.

Based on meetings and discussions with DTSC, the Standardized Risk Assessment Methodology (SRAM) Work Plan, Revision 1 for the Surficial Media Operable Unit, was revised. Meetings with DTSC are continuing to identify required changes to this document prior to submitting a final work plan.

A portion of the Area II Landfill (SWMU 5.1) investigation was completed in early November and trenches were backfilled in December 2003 after review of sample results and discussion with DTSC.

DTSC comments regarding the Building 203 Drainage Interim Measure Work Plan were received this period; discussions regarding these comments are ongoing. Additional characterization is planned to further define actions in the drainage.

Preparation of draft RFI site reports continued this period. Work began on the draft Alfa/Bravo Fuel Farm (ABFF) (Area II AOC), Delta Test Stand (SWMU 5.23), and R-2 Ponds (SWMU 5.26) RFI Site Reports, and the comprehensive RFI Program report.

Validation of recent soil and water samples and conducting a program quality assurance (QA) review of soil sampling data are ongoing.

RFI Quarterly Progress Report EPA No. CA1800090010 (Area II) November 16, 2003 – February 15, 2004 Page 2

DTSC, Rocketdyne, and MWH met several times this period to discuss the Building 203 Interim Measure, RFI reports and groundwater investigations, risk assessment methodology, and DTSC Hazardous Materials Laboratory (HML) data validation of the RFI samples.

2. SUMMARY OF FINDINGS

Review of Area II Landfill RFI site soil sample data, collected during October/November 2003, indicates no elevated concentrations.

Soil samples collected near ground-mounted transformers at NASA RFI sites in Area II during September 2003 did not contain detectable polychlorinated biphenyls (a total of 24 transformer locations were sampled in this event throughout the SSFL).

3/4 SUMMARY OF PROBLEMS/ACTIONS TAKEN

None.

5. PROJECT ACTIVITY NEXT PERIOD

Boeing will be involved with the following RFI activities during the next period:

- Complete the draft ABFF, Delta, and R-2 Ponds RFI Site Reports
- Complete and submit the draft RFI Program Report
- Begin preparation of the remaining NASA RFI Site Reports
- Complete and submit the final Surficial OU SRAM, Revision 1
- Conduct sampling in the Building 203 drainage area
- Complete transformer sampling at NASA RFI sites
- Continue data validation for samples collected at NASA sites
- Complete the investigation at the Area II landfill following the rainy season

6. PERSONNEL CHANGES

None.

7. SUMMARY OF CONTACTS

None.

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8. TREATMENT SYSTEM EFFECTIVENESS

No soil remediation treatment systems are in place or operational at this time.

9. DATA REPORTS SUBMITTED

Near-Surface Groundwater Characterization Report, Santa Susana Field Laboratory, Ventura County, California. Volumes I and II. November 2003.

Table 1 NASA Sampling Summary November 16, 2003 - Februrary 15, 2004

UNIT	Facility	MATRIX	Total Samples	Total Analyses	PCBs 8080/8082	TPH, 8015	8015B	Metals 6010B/7000	VOA, 8260	Perchlorate	PH, 9040/9045	o Mercury 7471A
Area II AOC	Coca/Delta FF	S	0	0	0	0	0	0	0	0	0	0
SWMU 4.15/AOC	Bowl Area	S	0	0	0	0	0	0	0	0	0	0
SWMU 4.5/6	LOX Area	V	0	0	0	0	0	0	0	0	0	0
SWMU 5.1	Area II Landfill	S	0	0	0	0	0	0	0	0	0	0
SWMU 5.1	Area II Landfill	V	0	0	0	0	0	0	0	0	0	0
SWMU 5.1	Area II Landfill	W	0	0	0	0	0	0	0	0	0	0
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SWMU 5.18/19	Coca Area	S	0	0	0	0	0	0	0	0	0	0
SWMU 5.2	ELV (CTL-II)	S	0	0	0	0	0	0	0	0	0	0
SWMU 5.2	ELV (CTL-II)	W	0	0	0	0	0	0	0	0	0	0
011110 0.2	LLV (OTE-II)	+	<u> </u>		<u>_</u>	-						
SWMU 5.9/10/11	Alfa Area	s	0	0	0	0	0	0	0	0	0	0
Total Water		W	0	0	0	0	0	0	0	0	0	0
Total Soil		S	0	0	0	0	0	0	0	0	0	0
Total Vapor		V	0	0	0	0	0	0	0	0	0	0
TOTAL			0	0	0	0	0	0	0	0	0	0
S = Soil	W = includes surface v	water and lead	hates				·i	····				
V = Vapor												
Note - does not include	samples on hold.	 		 								

Table 2 NPI Samping Summary Nevember 16, 2003 - February 15, 2004

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